

IN THE SPECIFICATION

On page 3, please replace paragraph [0006] with the following:

[0006] For example, in a catheter that has a needle running through a central lumen within the catheter shaft, the tendon is placed off-center. As can be imagined, the cross-section of the catheter shaft now has an unbalanced radial cross-section created by the tendon wire in its lumen construction. When the catheter shaft is placed over a curved anatomy section, such as the aortic arch, the stiffer tendon wire section has a tendency to stabilize itself toward the outside of the curve (resulting in the lowest energy state). If one tries to rotate the catheter shaft out of this preferred orientation, with the stiff section turning to the inside of the bending curve, the catheter shaft will resist this turning, requiring an applied torque in excess of that required if the catheter shaft had a balanced stiffness and resulting in an increased amount of shaft torsional distortion (wind-up) and accompanying stored torque in the catheter shaft. As one continues to rotate the catheter shaft just past the point with the stiff section directly at the inside of the bending curve, the resistance to turning is suddenly reduced, because the catheter shaft is returning toward its preferred orientation. The stored torque of the catheter shaft now exceeds that required for turning and the catheter shaft rapidly unwinds its wind-up until they are in balance. From the viewpoint of an operator who is turning the proximal end of the catheter shaft at a relatively constant rate, the distal end of the catheter shaft appears to slowly rotate away ~~[[form]]~~ from its preferred orientation, then when it gets to 180-degree away from its preferred orientation, it suddenly and uncontrollably speeds up and rotates past an adjacent arc of rotation. This sudden and uncontrollable rotation is referred to as whipping. To attain an orientation in the adjacent arc that the distal end of the

catheter shaft rotated past, the proximal end of the catheter shaft is required to be rotated back in the opposite direction. In many cases, it is impossible to get the distal end of the catheter shaft to maintain an orientation in the vicinity of 180-degrees away from its preferred orientation with the rotation of the proximal end of the catheter shaft even if the proximal end of the catheter shaft is rotated in the opposite direction. For an operator that only has control of the catheter's proximal end, whipping makes accurate control of the orientation of the catheter's distal end difficult, time consuming, and often very frustrating.